“New Energy Era” – The Rise Of Sustainability Initiatives And Strategic Alternatives In The Oil & Gas Industry

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Research Thesis

As the world enters a new decade of the 21st century, oil and gas companies remain under scrutiny on how they plan to tackle the financial and social challenges of their future. With investors and the general public becoming more concerned with the environmental impact and expected demand of fossil fuels, a disruptive transition in the oil and gas industry becomes no longer a question of if, but rather of when it will happen. For oil and gas companies to survive the energy transition, they need to incorporate low carbon or decarbonization projects, improve their ESG metrics, and build public trust. The survivors will be those that adapt to market demands, specifically by planning for sustainability initiatives and strategic alternatives in the coming decades. By undertaking the following strategy and leveraging their resources, oil and gas companies can lead the future energy markets.

Introduction & Background

Over the years, the oil and gas industry has received negative headlines particularly related to their impact on climate change and performance within the financial markets. The new era of faster, and more frequent distribution of news combined with a rise in social awareness on a global scale has placed oil and gas companies under a microscope to see how they act under immense pressure for change. Governments have increased regulations and zero-carbon emission policies around the world to heavily decrease or cease oil and gas operations. Investors and the general public have soured their viewpoints on the oil and gas sector due to low prices and bad performance. With an overall negative outlook, oil and gas companies struggle to balance both meeting investor expectations and creating a decarbonization strategy for the public. As a consistent leader of the energy markets and a great contributor to the overall global economy, the oil and gas industry must navigate itself accordingly to prevent the possibility of its competitors stealing market share, or even find itself dead-end with stranded assets. Amidst the global energy transition, oil and gas companies have the ability and resources to be a driving force in change before change drives them out. Through an increased focus on sustainability initiatives and strategic alternatives, they can leverage themselves to persevere.

Sustainability Initiatives

In order for oil and gas companies to gain support from investors and the general public, they need to incorporate a plan for a profitable low-carbon business model and a higher ESG metric. The plan should be heavily marketed and communicated to investors and the general public to provide clarity and reassurance on decarbonization goals.

The Paris Agreement and Sustainable Development Scenario (SDS) measure risks such as oil and gas reserves or long-cycle assets becoming uneconomic in the near future. A recent poll identified 86% of fund managers support investments that align with the Paris decarbonization goal, specifically prioritizing those that do and divesting from those that do not. For example, Norway’s sovereign wealth fund recently divested all their fossil fuel stocks that lacked ESG-integrated goals.

The strategy of screening companies based on their ESG standards have become increasingly popular amongst investment funds over the last decade. Higher ESG ratings indicate a low number of liabilities associated with climate change and a high capitalization of opportunities catered to current market demands. Additionally, the negative public perception of the oil and gas industry further pushes the demand for companies with a strong decarbonization strategy. In a comparison of the clean energy index versus natural resources index, clean energy companies exceeded natural resource companies in performance and demand.

Ultimately, oil and gas companies must seek out decarbonization investments that will improve their ESG scores and benefit the overall society. Their ESG performance, commitment, and effectiveness rely on major themes such as emissions, environmental product innovation, shareholders, and product responsibility. Investors base ESG scores largely on company-reported information and public company documents, which emphasizes the need for companies to vocalize their sustainability initiatives. By combining a series of actions that support sustainability initiatives with the communication of decarbonization plans, oil and gas companies will place themselves on a better path for financial and social challenges during this transition.

Source: Atlantic Council (2020)

Strategic Alternatives

With expected future demand indicating a rise for resources outside of fossil fuels, oil and gas companies must identify ways to diversify their portfolio of investments. As technologies increasingly impact supply and demand, oil and gas companies can gain a competitive advantage by investing in strategic alternatives before high barriers of entry develop.

While oil and gas companies are seeking a more profitable business model for fossil fuels, there remains a rising demand for a clean power generator to replace coal. By mastering decarbonization opportunities with the gas and electricity value chain, oil and gas companies will hold a strong competitive advantage in the long-run. Specifically, companies with investments in downstream gas infrastructure can transfer their expertise into incorporating gas-renewable infrastructure investments. Ultimately, they can combine traditional fuels to cater a rise in demand for new electrification solutions. For example, companies with deep-water offshore operations could incorporate offshore wind technologies that closely match their expertise. The complexity of new renewable investments creates multiple barriers of entry for new firms, but can be easily developed by traditional oil and gas companies because of the resources and knowledge they possess.

Outside of new renewable investments, oil and gas companies can focus on reducing carbon emissions from production through new technology investments. While these investments do not directly lead to profit, they effectively help companies improve their ESG ratings and provide an ethical service to the general public. New technology investments should focus on methane emissions and carbon capture, which are both frequently referenced in regulations and policies.

Conclusively, oil and gas companies gain a competitive advantage by investing in new renewables or decarbonization technology. While both investments are not expected to provide immediate profit, they establish a foundation for the energy transition. As other energy competitors begin to fill up the market share, it is crucial for oil and gas companies to begin investing in new programs for a smooth transition over the long run.

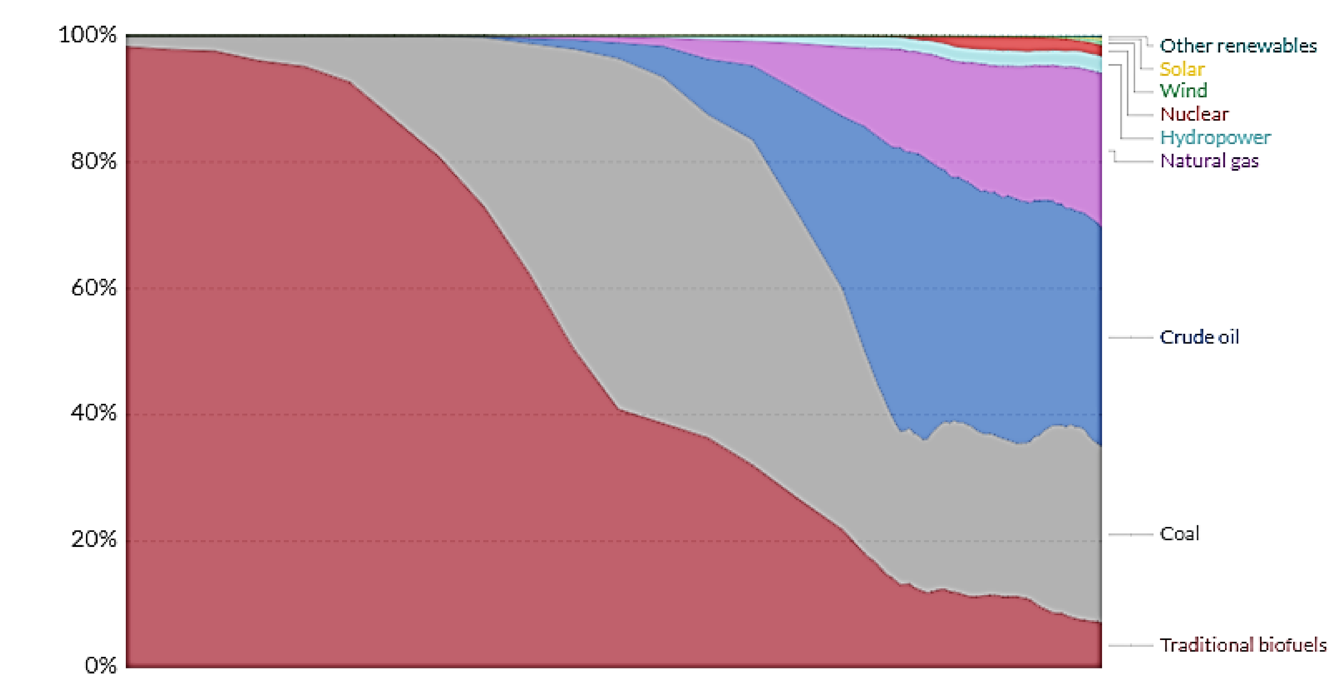
Source: Atlantic Council (2020)

Major O&G Companies

Energy Supply & Demand

Oil Production

Oil Consumption

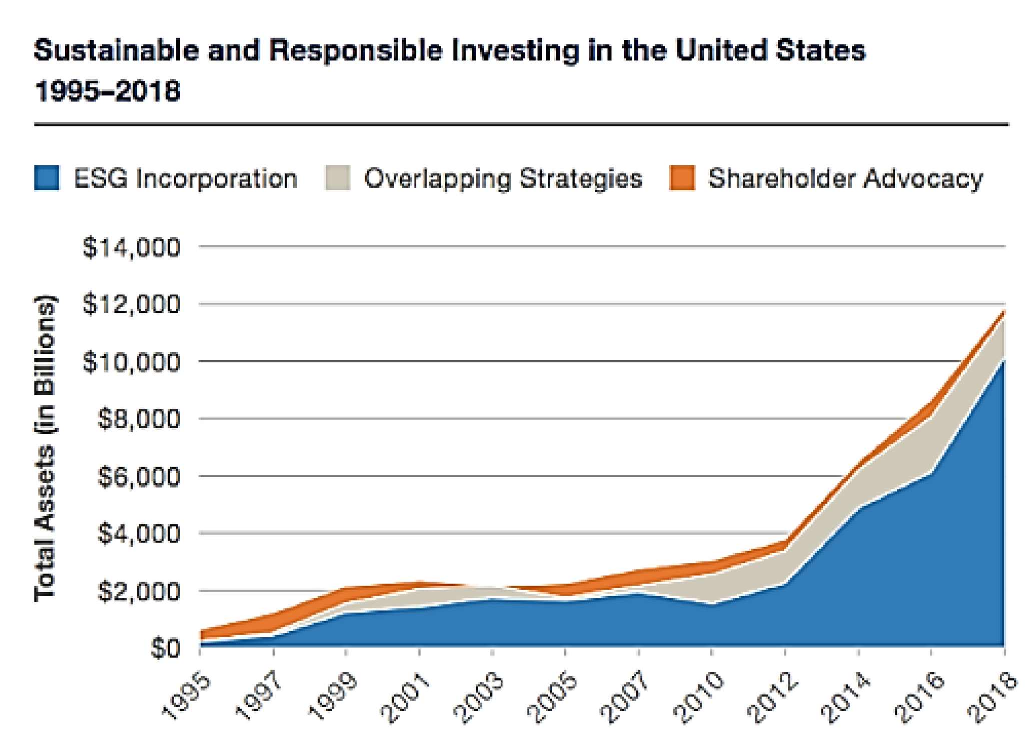


Global Energy Consumption

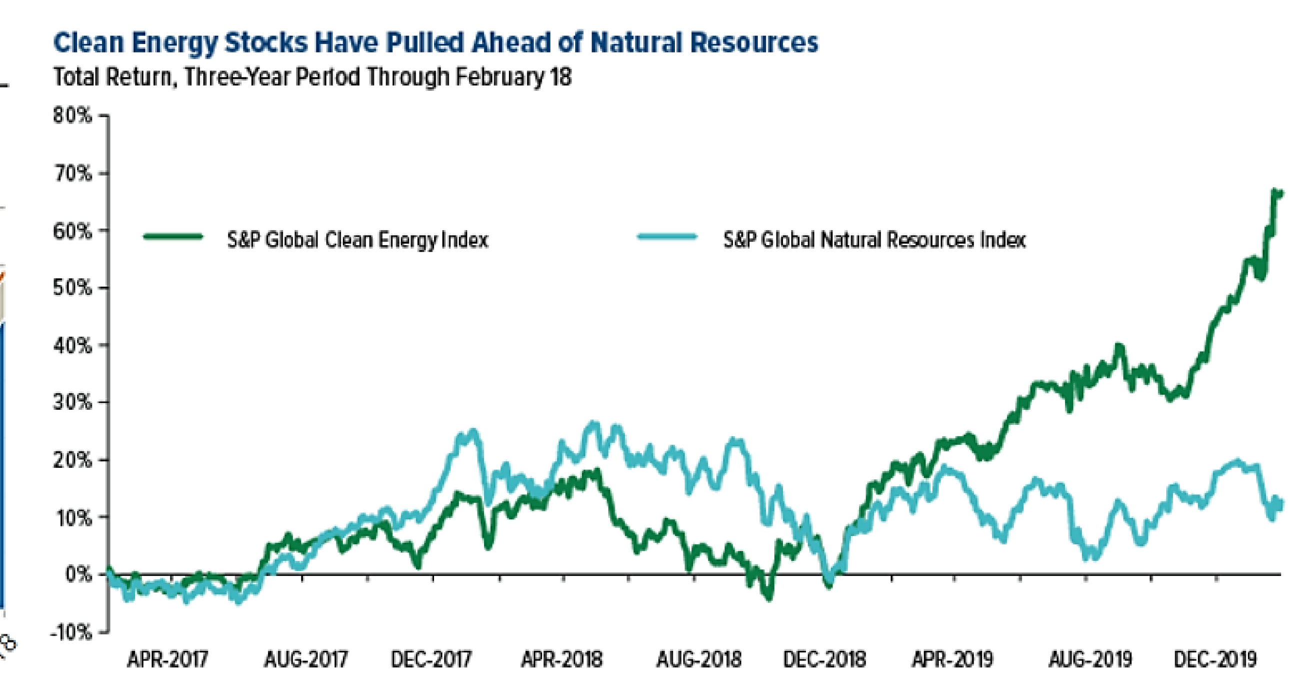
*Oil Production and Oil Consumption graphs are based on bbl/day

Sources: CIA World Factbook (2019); BP Statistical Review of World Energy (2019)

Transition Investment Yields



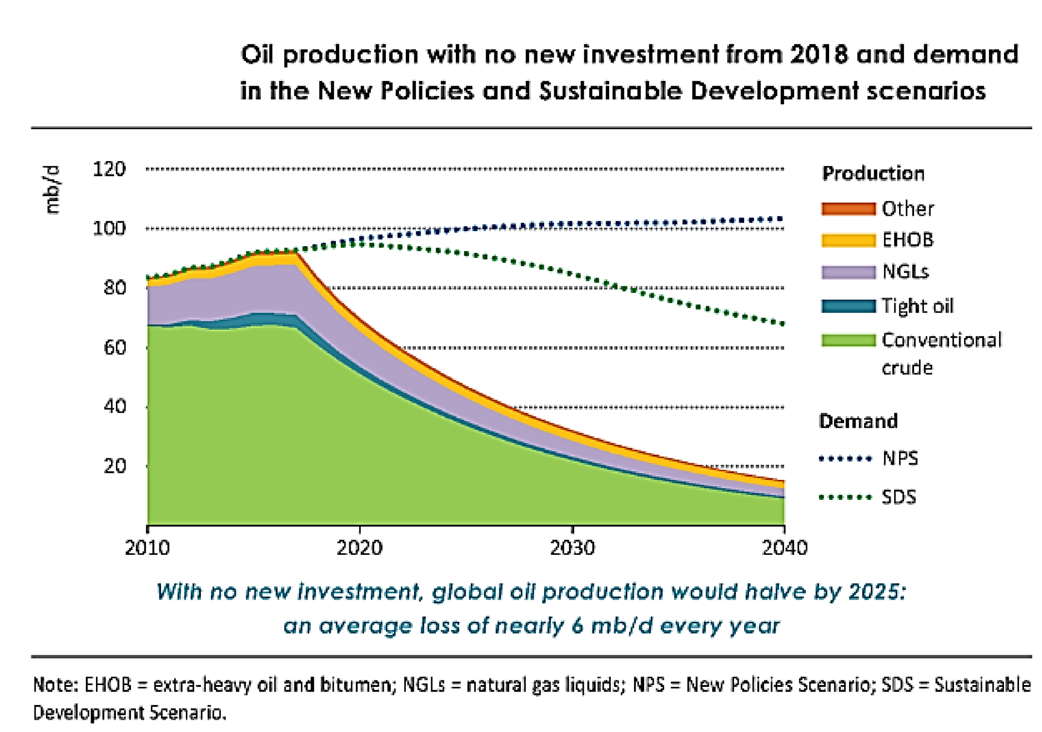
ESG Demand Growth



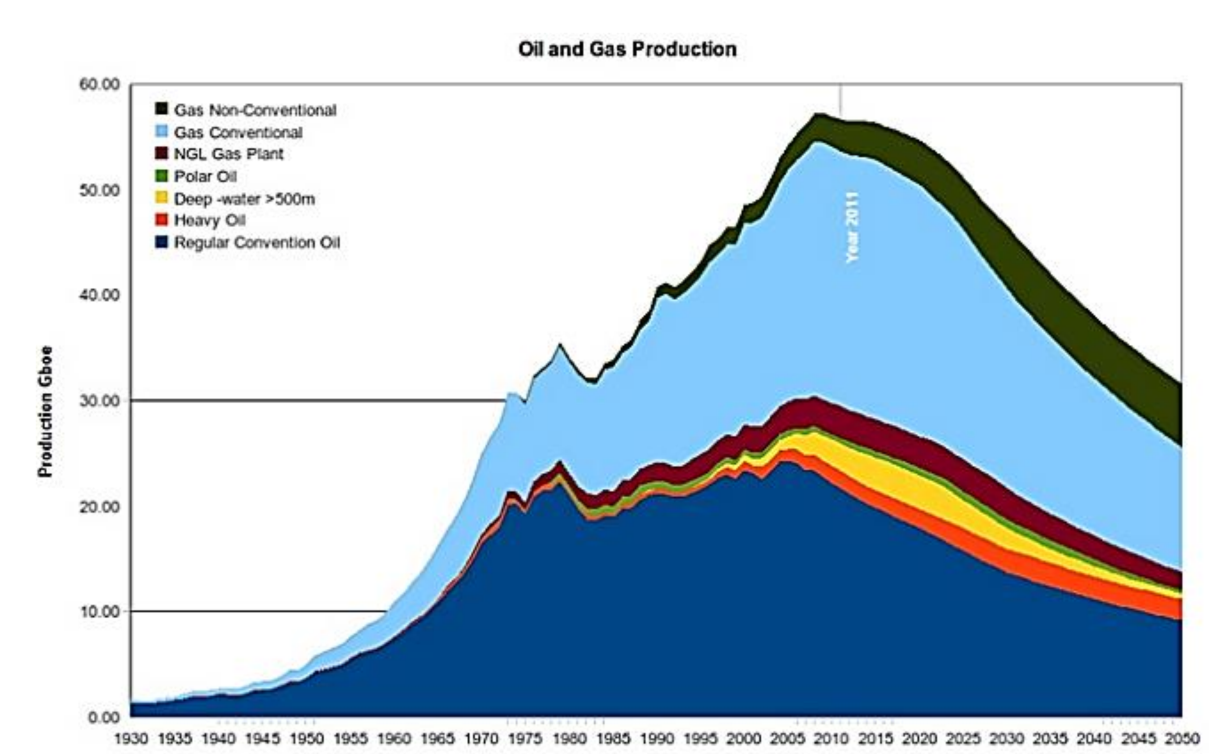
Clean Energy Index vs Natural Resources Index

Sources: US SIF Foundation (2018); S&P Dow Jones Indices (2019)

Transition Timeline



Global Oil Production vs Sustainability Demand



Peak Oil & Gas Theory

Sources: International Energy Agency (2019); PeakOilBarrel (2013)